Degradation of ¹⁴C ring labeled pesticides in selected soils of Sri Lanka

J. A. Liyanage¹, R. C. Watawala¹, A. P. Mallawatantri¹, R. S. Kookana², L. Smith² ¹Department of Chemistry, University of Kelaniya, Kelaniya, Sri Lanka ²CSIRO Land and Water, PMB 2, Glen Osmond, SA 5064, Australia

Degradation rates of ¹⁴C ring labeled carbofuran and diazinon in selected Sri Lankan soils were studied using 0.1 μ Ci/10 g soil in Nuwara Eliya (red yellow podzolic), Pugoda (alluvials) Kalpitiya and Negombo (regosols) soils by incubating at 28 °C of temperature for 13 hours light and 11 hours dark conditions and measuring the activity of liberated CO₂ using liquid scintillation counter after 0, 1, 3, 5, 7, 14, 28, 36, 42 and 58 days. During the total period the carbofuran mineralization was about 23% in Kalpitiya soils and less than 20% in other three soils and diazinon mineralization was about 25% in Negombo soil and very low in other soils.

Journal of radioanalytical and nuclear chemistry, Volume 272 Issue 3 Pages 477-481